REMARKS

Amendments have been made to overcome the section 112 rejection.

The examiner rejected claims 2, 8 and 14 as being physically impossible. The relevant claim limitation in question is, "wherein said average power output level is greater than the power output level that would result from powering the same chip with a continuous current input at level I instead of pulsed current input." Applicant wishes to explain this limitation so that it will be correctly understood. If a constant electrical power input to the semiconductor chips is used, the chips will build up heat over time, and their light output will decrease. If a pulsed current input to the semiconductor chips is provided, then the chips will not decrease and will be maintained at a higher level than if a constant electrical power input had been used. Therefore, when the claimed invention is used, a more powerful curing light is achieved because the heat effect of semiconductor chips is well managed. Although the pulsing of electrical input power uses less electrical power than a pulsed power input, use of a pulsed electrical input power causes the emission of more light from the semiconductor chips. Applicant requests withdrawal of the section 112 rejection.

The Examiner rejected claims based on a combination of Kovac and Kennedy. Applicant points out that he uses pulsed input to semiconductor chips in order to avoid overheating the semiconductor chips. Neither Kennedy nor Kovac teaches use of pulsed electrical power input to semiconductor chips in order to manage the heat of the LED chips. The Examiner states that Kennedy uses a square wave to recharge batteries, but using a square wave to recharge batteries is not the same as the using pulsed electrical power input to semiconductor chips in order to manage heat. The combination of Kennedy and Kovac therefore does not teach the limitations of

Applicant's claims. Rather, if Kennedy and Kovac are combined, the result will be a battery powered dental curing light with pulsed battery charging, not a light with pulsed electrical power to the semiconductor chips of the light in order to avoid overheating the chips as Applicant has claimed. Applicant requests withdrawal of the rejection.

The Examiner also asserted Ostler to support an obviousness rejection. Ostler teaches the use of modulated light output from a dental curing light in order to tailor the post-cure properties of the dental composite being cured. But Ostler does not teach pulsed electrical power input to LED chips in order to avoid overheating them. If Ostler and Kovac or Kennedy were combined, the result would be a dental curing light with a pulsed or modulated light output, not a light with pulsed electrical input to the semiconductor chips as Applicant has claimed. Therefore any obviousness rejection based on Ostler should be withdrawn.

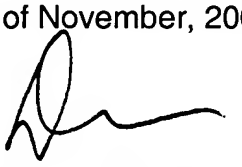
Applicant also wishes to point out that none of the references relied on by the Examiner teaches the limitations of an angled light output (claim 3, 9 and 15). This limitation has already been found to be patentable in U.S. Patent No. 6,783,362 also filed by Applicant and which has the same priority claim as the instant application. Therefore the Office should permit the claims having that limitation to be patented in this patent application as well.

Applicant also wishes to point out that the limitation of claim 2, 8 and 14, "wherein said average power output level is greater than the power output level that would result from powering the same chip with a continuous current input at level I instead of pulsed current input" is not found in any of the cited prior art. This limitation is neither anticipated nor obvious and the rejection should be withdrawn.

Applicant also wishes to point out that the power level limitations of claims 4-6, 10-12 and 16-18 are not disclosed by the prior art and are therefore patentable.

Reconsideration is requested. Applicant believes the case is now in condition for allowance. If any additional fees are due those fees should be charged to deposit account no. 50-0581.

Respectfully submitted this 23rd day of November, 2004.



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